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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,760

01/26/2004

Joel Thomson

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EXAMINER

LEYSON, JOSEPH S

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,760	<b>Applicant(s)</b> THOMSON, JOEL	
	<b>Examiner</b> JOSEPH LEYSON	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 6-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/21/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group I, apparatus claims 1-16, in the reply filed on January 26, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 17-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse, as mentioned above.

### ***Specification***

3. The specification is objected to because of the following informalities: the title and abstract should be amended to reflect the elected invention, i.e., apparatus only.

Appropriate correction is required.

4. The disclosure is objected to because of the following informalities: on p. 10, line 15, "flights 14" should be changed to --flights 32--.

Appropriate correction is required.

### ***Drawings***

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 74.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with

37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

6. Claims 6-13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 6-13 only further recite the material intended to be used with the claimed apparatus, and thus do not further limit the structure of the claimed apparatus. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or

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article worked upon by a structure being claimed does not impart patentability to the claims.” In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites “the first and second modes”. However, the second mode does not have antecedent basis making it unclear to what it refers.

Claim 4 recites “the first and second modes”. However, the second mode does not have antecedent basis making it unclear to what it refers.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Heathe et al. (US 4,988,281).

Heathe et al. (US 4,988,281) teach an apparatus (figs. 1-3) for a reciprocating screw injection molding machinery having a barrel 1 and a screw 2 which rotates in the

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barrel 1 comprising a ring-type check valve (i.e., figs. 1-3) having means to selectively switch to a first mode which allows bi-directional flow of material along the screw (i.e., col. 3, lines 20-31; bi-directional flow is capable when the ring 11 is moved forward), means for switching the check valve between the first mode and a second mode which prevents bi-directional flow of material along the screw (i.e., col. 3, lines 20-48; bi-directional flow is prevented when the ring is moved rearward to close the valve), means for switching the check valve between the first and second modes by axial motion of the screw (i.e., col. 1, lines 18-41; axial movement of the screw can close the check valve), means for switching the check valve between the first and second modes by rotational motion of the screw (i.e., col. 3, lines 20-48), and means 21 for at least partially blocking the egress of the material from the barrel 1, means 5 for attaching the check valve to the screw 2, wherein the check valve comprises a body 3 having a protrusion 30; a sliding ring 11 having a slot 33; and a valve seat 15; such that the first mode occurs when the protrusion 30 moves into a bottom of the slot 33 (i.e., figs. 1-3).

Alternatively, Heath et al. (US 4,988,281) teach an apparatus (figs. 4-7) for a reciprocating screw injection molding machinery having a barrel 100 and a screw (i.e., col. 3, lines 49-52) which rotates in the barrel 100 comprising a ring-type check valve (i.e., figs. 4-7) having means to selectively switch to a first mode which allows bi-directional flow of material along the screw (i.e., col. 1, lines 18-29; col. 3, lines 57-68; bi-directional flow is capable when the ring 111 is moved forward), means for switching the check valve between the first mode and a second mode which prevents bi-directional flow of material along the screw (i.e., col. 3, lines 57-68; bi-directional flow is

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prevented when the ring is moved rearward to close the valve), means for switching the check valve between the first and second modes by axial motion of the screw (i.e., col. 1, lines 18-41; axial movement of the screw can close the check valve), means for switching the check valve between the first and second modes by rotational motion of the screw (i.e., col. 3, lines 57-68), and means (i.e., 21; col. 3, lines 49-52) for at least partially blocking the egress of the material from the barrel 1, means (i.e., 5; col. 3, lines 49-52) for attaching the check valve to the screw, wherein the check valve comprises a body 103 having a protrusion 108; a sliding ring 111 having a slot 119; and a valve seat (i.e., col. 3, lines 49-56); such that the first mode occurs when the protrusion 108 moves into a bottom of the slot 119 (i.e., fig. 6).

As to claims 6-13, these claims only further recite materials to be used by the claimed apparatus, which does not have any patentable weight in apparatus claims. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114.

"Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

11. Claims 1, 2, 4 and 6-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Suumen et al. (US 6,007,322).

Suumen et al. (US 6,007,322) teach an apparatus (figs. 3-5) for a reciprocating screw injection molding machinery having a barrel and a screw 32 which rotates in the barrel (i.e., col. 1, lines 9-12) comprising a ring-type check valve (i.e., figs. 3-5) having means to selectively switch to a first mode which allows bi-directional flow of material along the screw (i.e., col. 6, lines 49-67; bi-directional flow is capable when the ring 43 assumes the communication position where passageways 73 and 46 align with each other), means for switching the check valve between the first mode and a second mode which prevents bi-directional flow of material along the screw (i.e., col. 6, lines 49-67; bi-directional flow is prevented when the ring 43 assumes a shutoff position where communication between passages 73 and 46 is broken), means for switching the check valve between the first and second modes by rotational motion of the screw (i.e., col. 6, lines 49-67), and means 71 for attaching the check valve to the screw 32, wherein the check valve comprises a body 64 having a protrusion 75, 75a, 75b; a sliding ring 43 having a slot (i.e., the slot defined between protrusions 76); and a valve seat 70; such that the first mode occurs when the protrusion moves into a bottom of the slot (i.e., col. 7, lines 1-16; when the protrusion 75 abuts the protrusion 76).

As to claims 6-13, these claims only further recite materials to be used by the claimed apparatus, which does not have any patentable weight in apparatus claims. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art



apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114.

“Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.” Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, “[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suumen et al. (US 6,007,322).

Suumen et al. (US 6,007,322) discloses the apparatus substantially as claimed, as mentioned above, except for means for at least partially blocking the egress of the material from the barrel.

Heathe et al. (US 4,988,281) disclose means 21 for at least partially blocking the egress of a material from a barrel 1 prior to injection of the material into a mold (col. 3, lines 9-20).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of Suumen et al. (US 6,007,322) with means for at least partially blocking the egress of the material from the barrel because such means are well known and conventional in the art, as disclosed by Heathe et al. (US 4,988,281), and would enable the outlet of the barrel to be blocked prior to injection of the material into a mold.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sukanuma et al. (US 2001/0053392) and Manda et al. (US 7,284,978) are cited as of interest to show the state of the art.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH LEYSON whose telephone number is (571)272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/  
Primary Examiner, Art Unit 1791  
6/9/08

/J. L./  
Examiner, Art Unit 1791